

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application.

Claims 1, 3-5, 8 and 16-40 are now present in this application. Amendments have been made to the specification. Claims 21-40 have been added, and claim 1 has been amended. No new matter is involved. The amendments to the specification and claim 1, and the new claims, are fully supported by Applicants' originally filed disclosure.

Reconsideration of this application, as amended, is respectfully requested.

Premature Final Rejection

For the very first time, the outstanding Office Action states that the term "range" in step S12 is not understood, and that the relationship of the laundry amount determination to the flow chart of Fig. 2 is not understood.

Moreover, instead of indicating whether this statement forms the basis of an objection to the disclosure, or to the drawings, or whether it constitutes a ground of rejection of the claims, the statement is simply presented under the heading of "REMARKS."

Such statements place the meaning of this terminology in issue, terminology which is included in the claims. Applicants respectfully submit that the meaning of the terminology "range" is clear and is entitled to have any response to this statement considered on its merits in a subsequent Office Action. See, in this regard, MPEP § 707/07(f).

Entry of Amendments

Because the finality of the outstanding rejection is premature, for reasons presented above, it is proper to enter the amendments to the claims.

Objection to the Drawing

The Examiner has objected to the drawing for failure to comply with 37 CFR § 1.84(p)(5) in reference numeral 14, shown in Fig. 1 is not described in the specification. In order to overcome this objection, Applicants are amending the specification to describe that element 14, which is shown in Fig. 1, is a laundry lifter. No new matter is involved.

Reconsideration and withdrawal of this objection are respectfully requested.

“REMARKS”

The Office Action contains a paragraph under the heading “REMARKS.” The remarks indicate that the term “range” in step S12 is not understood. Applicants respectfully submit that the meaning of this term is clear to one of ordinary skill in the art who reads Applicants’ disclosure, which indicates that the dehydration speed input in step S11 can be in certain ranges, one of which is from 400rpm to 800rpm (shown in Fig. 2, and discussed throughout the specification, including the paragraph bridging pages 6 and 7) and the other of which is between 1000rpm and 1400rpm (shown in Fig. 2 and discussed throughout the specification, including the first full paragraph on page 7). The user of the dryer selects a dehydration speed and inputs that speed in step S12 – see pages 2 and 3 of the originally filed specification.

The same “remarks” paragraph also asserts that the relationship of the laundry amount determination to the flow chart of Fig. 2 is not understood, and asks “how is this amount changing the dehydration speed?” In response to this, Applicants respectfully submit that the flow chart of Fig. 2 begins with step S11 by inputting a user selected dehydration speed that is based on a determination of laundry amount. As explained in the last full paragraph on page 6 of the specification, a dehydration speed is automatically determined using a Hall-effect sensor and set automatically. However, as explained in the next paragraph, that bridges pages 6 and 7 of the specification, the set dehydration speed is input by a user. In this way, the user can actuate the set dehydration speed, or enter a different dehydration speed and actuate that different dehydration speed.

Rejection under 35 U.S.C. § 112, 2nd Paragraph

Claims 1, 8 and 16 stand rejected under 35 U.S.C. § 112, 2nd paragraph. This rejection is respectfully traversed.

The test for compliance with the second paragraph of 35 U.S.C. § 112, as stated in Miles Lab., Inc. v. Shandon, Inc., 997 F.2d 870, 875, 27 USPQ2d 1123, 1126 (Fed. Cir. 1993), cert. denied, 510 U.S. 1100 (1994) is whether one skilled in the art would understand the bounds of the claims when read in light of the specification. If the claims, read in light of the specification, reasonably apprise those skilled in the art of the scope of the invention, Section 112 demands no more. See, also, In re Merat, 519 F.2d 1390, 1396, 186 USPQ 471, 476 (CCPA 1975), which stated that the question under Section 112, second paragraph is whether the claim language,

when read by a person of ordinary skill in the art in light of the specification, describes the subject matter with sufficient precision that the bounds of the claimed subject matter are distinct. See, also, In re Warmerdam, 33 F3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). The second paragraph of 35 U.S.C. § 112 requires claims to be set out and circumscribe a particular area with a reasonable degree of precision and particularity, In re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977).

The Examiner indicates that the manipulative steps involved with “establishing a range of the set dehydration drum rotation speeds” is not understood.

Applicants respectfully submit that the range of dehydration drum rotation speeds is established as a result of steps S11 and S12 of Fig. 2, two specific ranges being illustrated in Fig. 2.

The Examiner also indicates that it “is unclear how a rotation speed of the rotor is controlled for the amount of laundry”. Applicants respectfully submit that this is not what is actually claimed. Claim 1, for example, claims a combination of features, including “controlling a rotation speed of the motor of the washing machine for the amount of laundry in the washing machine by controlling the phase of the motor voltage phase control circuit in accordance with the performance evaluating torque-speed curves.” This positively claimed feature is disclosed, for example, in the last sentence of the first full paragraph on page 6 of the specification, in a clear manner.

The Examiner also states that it is unclear how the torque –speed curves are calculated on the basis of the sensed amount of the laundry.

In response to this question, Applicants respectfully submit that regardless of how these curves were determined, their meaning is clear to one of ordinary skill in the art and the Office Action fails to present and reason why their meaning is unclear to one of ordinary skill in the art. Furthermore, Applicants respectfully submit that the torque-speed curves shown in Fig. 4 were obtained empirically. Moreover, claim 1 has been amended to recite “determining” performance evaluating motor torque-speed curves.

Thus, Applicants respectfully submit that claims, 1, 8 and 16 fully comply with 35 U.S.C. § 112, second paragraph as they stand and because one of ordinary skill in the art can readily determine the metes and bounds of the invention.

Reconsideration and withdrawal of this objection is respectfully requested.

Rejection under 35 U.S.C. § 112, First Paragraph

Claims 1, 3-5, 8 and 16-20 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. This rejection is respectfully traversed.

A complete discussion of the Examiner’s rejection is set forth in the Office Action, and is not being repeated here.

It is well settled that *ipsis verbis* disclosure is not necessary to satisfy the written description requirement of section 112. Instead, the disclosure need only reasonably convey to persons skilled in the art that the inventor had possession of the subject matter in question. In re Edwards, 568 F.2d 1349, 1351-52, 196 USPQ 465, 467 (CCPA 1978); and Fujikawa v.

Wattanasen, 39 USPQ2d 1895 (Fed. Cir. 1996).

The Examiner's assertions will be dealt with in the order they are presented.

With respect to the language "calculating performance evaluating motor-torque speed curves for multiple dehydration speeds in the established range," this language is supported in (1) the descriptions of Fig. 4 found on page 5, (2) the paragraph bridging pages 7 and 8, (3) the last full paragraph on page 8, and (4) the paragraph bridging pages 8 and 9. Moreover, the "calculating" language has been replaced by - - determining - -, which is broader in scope than "calculating" and can read on a variety of empirical methods known to one of ordinary skill in the art for determining the curves shown in Fig. 4.

With respect to the language "controlling a rotation speed of the motor of the washing machine for the amount of laundry in the washing machine by controlling the phase of the motor voltage phase control circuit in accordance with the performance evaluating torque-speed curves," this language is supported in the portion of the specification beginning on line 24 of page 7 and continuing to page 9, line 9, and Fig. 4.

With respect to the language "at least one dehydration speed," this language is not found, *per se*, in claim 1. However, the language "at least one other dehydration speed" is found in claim 1, and is supported by Fig. 2, which discloses different upper and lower dehydration speeds and a multitude of speeds therebetween, for two different ranges, and by the paragraph bridging pages 6 and 7, for example.

With respect to the language "the performance evaluating motor-torque speed curves are calculated in the basis of the sensed amount of laundry in the washing machine, is supported by

(1) the paragraph starting page 4, line 12, which discloses “setting the dehydration speed on the basis of an amount of laundry out into the washing machine; and controlling a rotation speed of a motor of the washing machine on the basis of the set dehydration speed;” and (2) the brief description of Fig. 4 found in lines 12-14 of page 5; (3) the specification beginning on line 24 of page 7 and continuing to page 9, line 9, and Fig. 4.

The language “the motor voltage phase control has fire angles and the step of controlling the motor voltage phase control circuit in accordance with the performance evaluating torque-speed curves is supported, with respect to the “fire angle” feature, on page 8, lines 11-13, and in originally filed claims 13 and 16, which are part of the originally filed specification and, with respect to the rest of the language, is supported by the brief description of Fig. 4 found in lines 12-14 of page 5; and the specification beginning on line 24 of page 7 and continuing to page 9, line 9, and Fig. 4.

The “established range includes three drum speeds” language, found in claims 17-19 is supported by Fig. 2, where each range includes separate upper and lower specific speeds, and an intermediate range of speeds therebetween. In this regard, Applicants respectfully submit that the original drawings are part of Applicant’s original disclosure and can be used to provide support for claim language. Shaffer Tool Works, et al. v. Joy Manufacturing Co., 193 USPQ 115 (DC S Tex 1976). Support for this language is also found in the portions of the specification that describe Fig. 2.

With respect to the statement in the outstanding Office Action that how efficiency is related to Fig. 4 and how performance satisfaction is evaluated is unclear, Applicants respectfully

submit that this issue has nothing to do with whether the claims lack written description and to the extent that this issue is set forth in a lack of written description requirement, the rejection is improper and should be withdrawn.

Nevertheless, in the interest of being fully responsive, Applicants respectfully submit that Fig. 4 is used with respect to calculating load torque applied to the drum, as explained in the detailed description of Fig. 4, for example, on pages 6-9 of the specification. Motor efficiency is determined using conventional techniques. Performance evaluation is done, as explained on page 9, lines 10-16, in terms of values calculated in the steps for calculating the properties of the motor, which are clearly set forth, for example, in Fig. 2 as being dehydration RPM, Motor performance, which includes torque and efficiency.

Further, in this regard, Applicants respectfully submit that the burden of establishing lack or written description, or lack of enablement (to which this last statement that it is not understood how performance satisfaction is evaluated, may pertain) is on the Office and the Office has not made out a *prima facie* case of either lack of written description or of lack of enablement of the claimed invention. An analysis of whether the claims under appeal are supported by an enabling disclosure requires a determination of whether that disclosure contained sufficient information regarding the subject matter of the appealed claims so as to enable one skilled in the pertinent art to make and use the claimed invention. The test for enablement is whether one skilled in the art could make and use the claimed invention from the disclosure coupled with information known in the art without undue experimentation. See United States v. Teletronics, Inc., 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir, 1988), cert. denied, 109 S.Ct. 19 54 (1989); In re

Stephens, 529 F.2d 1343, 1345, 188 USPQ 659, 661 (CCPA 1976). As framed by our reviewing court, the dispositive issue with regard to the first paragraph rejection is whether the disclosure is sufficient to enable one of ordinary skill in the art to practice the claimed invention. See Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 1463, 221 USPQ 481, 489 (Fed. Cir. 1984).

In order to make a rejection, the Examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. See, In re Wright, 999 F.2d 1557, 1561-2, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993) (Examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure). A disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 USC 112, first paragraph, unless there is a reason for doubting the objective truths of the statements contained in the disclosure which must be relied on for enabling support. Assuming that sufficient reason for such doubt exists, a rejection for failure to teach how to make or use will be proper on that basis. See, In re Marzocchi, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971).

Once the Examiner has established a reasonable basis to question the enablement provided for the claimed invention, the burden falls on the Applicant to present persuasive arguments, supported by suitable proofs where necessary, that one skilled in the art would be able to make and use the claimed invention using the disclosure as a guide. See, In re Brandstadter,

484 F.2d 1395, 1406, 179 USPQ 286, 294 (CCPA 1973). In making the determination of enablement, the Examiner shall consider the original disclosure and all evidence in the record, weighing evidence that supports enablement [the appellant may attempt to overcome the Examiner's doubt about enablement by pointing to details in the disclosure but may not add new matter. The appellant may also submit factual affidavits under 37 CFR 1.132 or cite references to show what one skilled in the art knew at the time of filing the application against evidence that the specification is not enabling.

Thus, the dispositive issue is whether the Applicant's disclosure, considering the level of skill in the art as of the date of the appellant's application, would have enabled a person of such skill to make and use the claimed invention without undue experimentation. The threshold step in resolving this issue is to determine whether the Examiner has met his burden of proof by advancing acceptable reasoning inconsistent with enablement.

Factors to be considered by an Examiner in determining whether a disclosure would require undue experimentation include (1) the quantity of experimentation necessary, (2) the amount of guidance or direction presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. See, In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988), citing Ex parte Formal, 230 USPQ 546, 547 (Bd. Pat. App. & Int. 1986).

The outstanding Office Action fails to meet the Office's burden of proof by advancing acceptable reasoning that Applicants' disclosure is inconsistent with proper enablement.

Accordingly, the Office Action does not make out a *prima facie* case of lack of written description of the claimed invention.

Reconsideration and withdrawal of this rejection are respectfully requested.

New Claims 21-40

Claims 21-40 are added. Support for these claims is found throughout Applicants' originally filed disclosure. Applicants respectfully submit that claims 21-40 recite a combination of features, including sensing an amount of laundry items in the drum based on a rotation speed of the motor that is neither disclosed nor suggested by the applied art.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46, 472, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

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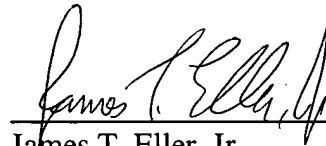
If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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